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CHAPTER 1

GENERAL

1-1. Purpose and scope. This manual prescribes methods and guidance for the construction and operation of sanitary landfills at Army mobilization facilities.

1-2. Regulatory requirements. The minimum legal requirements for all Solid Waste Disposal facilities will be in accordance with PL 94-580 and with 40 CFR 257. The criteria presented herein represent minimum design criteria which will meet the legal requirements in most cases. In instances where the local conditions or guidelines (state and local, etc.) require the use of more stringent criteria than related herein, those criteria will apply.

1-3. Health and safety objectives. Solid wastes ordinarily contain many contaminants which can produce serious health hazards or nuisances. The engineering design must result in a sanitary landfill which, when operated correctly, will preclude the following:

- Pollution of surface and ground waters.
- Air pollution by odor, dust, or smoke.
- Infestation by rats, flies, or other vermin.
- Other nuisance factors such as noise.
- Fires.
- Explosive hazard from migrating and/or collecting methane generated within the fill.

1-4. Solid waste stabilization in a sanitary landfill. The decomposition of organic material in a sanitary landfill is usually anaerobic, and the end products are primarily gases and moist humus material. Typically the gases are methane and hydrogen (both of which can be explosive), carbon dioxide, nitrogen, and hydrogen sulfide. The rate of stabilization is difficult to predict and depends on many factors including climate, moisture of the refuse, and degree of compaction.